REMARKS

Reconsideration and allowance of this application, as amended, are respectfully requested. The written description portion of the specification, the title of the invention, and claims 3 and 19 have been editorially amended. Claims 1-21 remain pending in the application. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein.

In response to the objection to the specification, the written description portion of the specification (pages 12 and 26), the title of the invention, and claims 3 and 19 have been editorially amended. Reconsideration and withdrawal of the objection are respectfully requested.

Claims 1-8[1] stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 09-127885 to Asai in view of U.S. Patent No. 5,928,801 to Broer et al. (hereinafter "Broer"). The Office Action asserts, *inter alia*, that "it would have been obvious . . . to include the polarization separator as taught by Broer et al. in between the emissive layer and the phase plate of the display device of Asai so that no light emitted from the emissive layer is absorbed, resulting in enhanced brightness of the display."

For at least the following reasons, the rejection is respectfully traversed. Asai discloses a light emitting device and light emitting display in which contrast is improved by restricting the reflection of external light by way of including a phase plate and a polarizing device. Broer discloses an illumination system for irradiating desired polarized light and a flat panel display, such as a liquid crystalline picture display, including the system, wherein a polarization separator is located between an emissive layer and a phase plate.

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[1] From the context of the Office Action, Applicants' attorney believes that claims 1-8 *and* 12-20 stand rejected over Asai in view of Broer.

As indicated above, the Office Action asserts that "it would have been obvious . . . to include the polarization separator as taught by Broer et al. in between the emissive layer and the phase plate of the display device of Asai so that no light emitted from the emissive layer is absorbed, resulting in enhanced brightness of the display."

But, Broer is concerned with an illumination system especially suitable for the back light device of a liquid crystal display. Therefore, Broer's illumination system does not display an image by itself. That is, a polarization separator is disposed on the reverse side (opposite side of observer) of an image forming portion composed of a liquid crystal layer in the prior art, but there has not been a structure in which the polarization separator is disposed on the front side (observer side) of the image forming portion (light emitting layer in Applicants' invention).

Even by applying the teaching of Broer to Asai, there is no teaching or suggestion in the asserted combination that would lead one to one to attain Applicants' claimed invention. In a light emitting device and light emitting display for disposing a light emitting layer, with a phase plate and a polarizing device, simply disposing a polarization separator between the light emitting layer and the phase plate results in a new problem not considered by the prior art. That is, in a bright environment, irrespective of disposing the polarizing plate, a light corresponding to a reflection wavelength range of the polarization separator of the external incident light to the element reflects to the observer, as disclosed at specification page 13, lines 4 to 9, and page 28, lines 5 to 9. Under the bright circumstances associated with the reflecting light, contrast is degraded.

In the illuminating system disclosed by Broer, since the liquid crystal display element is disposed on the observer's side, no direct light enters the illuminating system, and the aforementioned problem is of no consequence. In fact, Broer recommends improving brightness by utilizing a polarization separator which reflects all the visible light wavelength range, as disclosed at column 6, lines 58-60. In this way, by utilizing a polarization separator

for reflecting all the visible wavelength range into the element including the light emitting layer, phase plate, and polarizing plate, and a polarization separator disposed between the light emitting layer and polarizing plate, reflection of external light becomes large, with a resultant deteriorating contrast ratio. Therefore, the polarizing plate become meaningless and a practical display element cannot be realized.

In the claimed invention, however, by taking into consideration the aforementioned prior art problems, the reflecting wavelength is limited to a part of the light emitting wavelength range, and a narrower range compared to the visible wavelength range. By limiting the reflecting wavelength range of the polarization separator into a narrower range, the reflection of external light under bright conditions is suppressed so as to realize a high contrast ratio (see specification page 28, line 20, to page 29 line 7, and page 30, lines 19 to 24).

Accordingly in Applicants' claimed invention, by limiting the reflecting wavelength range of the polarization separator into the part of the light emitting wavelength range of the light-emitting layer, the following effects are realized.

That is, if the light wavelength range re-used by reflection at the polarization separator is narrower than the light emitting range of the light emitting layer, then the wavelength distribution of light actually emitted from the element is a precipitous distribution compared to the light emitting wavelength distribution of the light emitting layer, and therefore, a high color of light in color purity compared to the light emission of the light emitting layer. In addition, in the case of displaying an element of RGB three primaries, by upgrading the color purity of the light emitting element corresponding to each color, a display device of a wide color spectrum can be obtained (see specification page 29, line 23, to page 30, line 18).

Broer discloses that since the reflecting wavelength of a cholesteric deflecting layer is limited, the reflected light will have a color in conformity with the wavelength range, as

disclosed at column 3, lines 33 to 37. However, Broer does not disclose disposing a polarization separator at the front side (observer side) of the light emitting layer for emitting a predetermined color of light, which reflects light corresponding to a wavelength range of the color and narrower than the light emitting wavelength of the light emitting layer, as claimed. In addition, Broer does not disclose or even suggest obtaining a color of light of a high color purity compared to the light emission itself of the light emitting layer, and obtaining a high contrast ratio under bright conditions by decreasing the reflection of external light at the same time, as claimed.

Reconsideration and withdrawal of the rejection of claims 1 -8 under § 103 are respectfully requested.

For reasons similar to those identified above, the rejection of claims 9, 10, 11, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Asai and Broer and further in view of "Cholesteric Reflectors with a Color Pattern" by Maurer, Kreuzer, Stohrer, SID 94 Digest pp. 399-402 is respectfully traversed. The combined disclosures would not have rendered obvious the embodiments of the invention defined by any of the rejected claims.

The claimed invention would not have been obvious because there is no suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings to attain the claimed invention. The Maurer article does not rectify the above-described deficiencies associated with Asai and Broer.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

By _____

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